

REMARKS/ARGUMENTS

Claims 1-3 and 5-21 are pending. Claim 4 is canceled. Claim 1 is currently amended to incorporate original claim 4. Additionally, the primer coat of amended claim 1 finds support in the specification: pg 15, lines 8-12. Claims 2, 3 and 5 are currently amended to properly depend from currently amended claim 1. Claims 6-7 are added and find support in original claim 5. Claims 8 is added and finds support in original claim 3 and the specification: pg 6, line 30 - pg 7, line 28. Claim 9 is added and find support in the specification: pg 4, lines 28 - pg 5, line 3. Claim 10 is added and finds support in the specification: pg 6, lines 18-21. Claim 11 is added and finds support in the specification: pg 7, lines 2-5. Claim 12 is added and finds support in the specification: pg 9, lines 16-18. Claims 13 and 14 are added and find support in the specification: pg 7, line 21 - pg 9, line 18. Claims 15 and 16 are added and find support in the specification: pg 9, line 30 - pg 10, line 14. Claims 17-19 are added and find support in the specification: pg 10, line 15 - pg 12, line 9. Claim 20 is added and finds support in the specification: pg 21, lines 12-31. Claim 21 is added and finds support in the specification: pg 15, lines 8-12. No new matter has been entered.

Claims 1- 5 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hiroomi* (JP 2002-175,983) in view of *Furasawa* (EP 1,085,579) and *Jones* (GB 2,248,853). Applicants submit that the combination of *Hiroomi* in view of *Furasawa* and *Jones* does not render obvious claims 1- 5 of the present application because even when the above references are combined, they do not teach or suggest pre-coating a substrate with an organic metal compound comprising a metal atom selected from the group consisting of Ti, Pd, and Al, as claimed by Applicants in amended claim 1.

Hiroomi discloses a process of simultaneously depositing silicon and aluminum directly on the surface of a substrate using mainly physical applied force in order to prepare a

silicon-aluminum film (Abstract, [0017]). However, *Hiroomi* does not disclose compositions comprising compounds of silicon and aluminum together nor liquid compositions cured by heat and/or light. Furthermore, *Hiroomi* does not disclose depositing a pre-coating film on the substrate prior to the formation of the silicon-aluminum film as claimed by Applicants (see amended claim 1).

Furasawa discloses a process of coating liquid compositions containing a silicon compound to form a coating film and a subsequent step of converting the coating film into a silicon film by heat treatment and/or light treatment ([0012]). *Furasawa* further discloses a process of pre-coating the substrate with an organic compound containing indium and tin and converting the indium and tin to an ITO (indium-tin-oxide) film ([0021]). However, *Furasawa* does not disclose pre-coating with other metals aside from In and Sn. Specifically, *Furasawa* does not disclose pre-coating with any of Ti, Pd or Al as claimed by Applicants (see amended claim 1). Furthermore, the ITO in *Furasawa* is disclosed as a conductive pre-coating film, not as a means for increasing adhesion of the silicon film ([0021]).

Jones discloses a process for coating a substrate with aluminum by depositing a solution of alane (AlH_3) amine adduct which is subsequently thermally decomposed on the substrate (Abstract). However, *Jones* fails to disclose compositions comprising compounds of silicon and aluminum together, or depositing a pre-coating film on the substrate prior to the formation of the aluminum film. Furthermore, *Jones* pertains to the addition of Al on substrates to form mirrors and does not discuss conductive films. Therefore, there would be no motivation for one skilled in the art of solar cell technology to combine *Jones* with *Hiroomi* or *Furasawa*.

Moreover, presence of a property not possessed by the prior art is evidence of nonobviousness (MPEP 716.02(a), Part III). The use of a coating film formed from an organic metal compound comprising at least one metal atom selected from the group

consisting of Ti, Pd and Al on the substrate prior to the formation of the silicon-aluminum film in the present application ensures maintenance of stable adhesion between the substrate and the silicon-aluminum film (see pg. 15, lines 12-15). Because *Hiroomi*, *Furasawa*, and *Jones* do not disclose the use of a coating film containing either Ti, Pd or Al, the result of such a coating film improving adhesion between the substrate and the silicon-aluminum film is a nonobvious.

In conclusion, there is no motivation to combine *Hiroomi* and *Furasawa* with *Jones*. Moreover, even if there was such motivation, the combination of *Hiroomi*, *Furasawa* and *Jones* fails to teach or suggest Applicants' silicon-aluminum film formed on the coating film of a substrate formed from an organic metal compound comprising at least one metal from the group consisting of Ti, Pd and Al (see amended claim 1). Furthermore, the result of such a coating film improving adhesion between the substrate and the silicon-aluminum film is nonobvious. Therefore, the processes claimed in the present application are nonobvious over *Hiroomi* in view of *Furasawa* and *Jones*.

Claims 2,3 and 5-21 are dependent on and contain all the limitations of Claim 1, which as currently amended is in allowable form. Therefore, for the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance. Applicants respectfully request the withdrawal of the rejections and passage of this case to issue.

Respectfully submitted,

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 08/07)

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Richard L. Treanor
Attorney of Record
Registration No. 36,379